

App. Serial No. 10/534,480  
Docket No.: DE020261US

RECEIVED  
CENTRAL FAX CENTER

In the Specification:

SEP 25 2007

Please amend the specification as indicated below.

[0005] While buck converters can be used as single converters, alternatively a plurality of buck converters may be used in a so called multiphase converter. The principle of multiphase converters allows to ~~reduce~~ reduction of the output voltage ripple under steady state conditions. Thus the number of output capacitors might be reduced by using a multiphase converter.

[0013] The invention proceeds from the consideration that the number of output capacitors can be decreased by removing energy stored in the inductor during the load reduction. The stored energy is removed according to the invention by using an additional current path, or transient shunt. The proposed transient shunt allows to ~~minimize~~ minimizing the number of output capacitors in the converter, since the influence of load steps due to a reduction of the load is canceled.

[0027] FIG. 3 is a circuit diagram of a second embodiment of a buck converter according to the invention using a low ~~impedance~~ impedance path as additional current path; and

[0028] FIG. 4 is a circuit diagram of a third embodiment of a buck converter according to the invention using a low ~~impedance~~ impedance path as additional current path.

[0033] According to the invention, an additional current path 11<sub>1</sub> or 12 is provided in parallel to the inductor 6 and/or in parallel to the capacitor 7. The additional current path 11<sub>1</sub> or 12 is opened, whenever a load connected to the output capacitor 7 is turned off. Thereby, the energy stored in the inductor 6 can be removed via the additional current path. The direction of the current on the possible additional current paths is indicated by arrows.